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## What is Claimed is:

- 1. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a substantially monodispersed mixture of conjugates, wherein the conjugate comprises a first oligomer and a second oligomer, wherein each oligomer is coupled to salmon calcitonin and wherein the first oligomer is covalently coupled to an amine function of Lys<sup>11</sup> of the salmon calcitonin and the second oligomer is covalently coupled to an amine function of Lys<sup>18</sup> of the salmon calcitonin.
- 2. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a substantially monodispersed mixture of conjugates, each conjugate comprising a calcitonin drug coupled to an oligomer that comprises a polyethylene glycol moiety, wherein the oligomer comprises a first polyethylene glycol moiety covalently coupled to the calcitonin drug by a non-hydrolyzable bond and a second polyethylene glycol moiety covalently coupled to the first polyethylene glycol moiety by a hydrolyzable bond.
- 3. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a substantially monodispersed mixture of conjugates each comprising salmon calcitonin covalently coupled at Lys<sup>11</sup> of the salmon calcitonin to the carboxylic acid moiety of a carboxylic acid, which is covalently coupled at the end distal to the carboxylic acid moiety to a methyl terminated polyethylene glycol moiety having at least 7 polyethylene glycol subunits, and covalently coupled at Lys<sup>18</sup> of the salmon calcitonin to the carboxylic acid moiety of a carboxylic acid, which is covalently coupled at the end distal to the carboxylic acid moiety to a methyl terminated polyethylene glycol moiety having at least 7 polyethylene glycol subunits.
- 4. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a molecular weight distribution with a standard deviation of less than about 22 Daltons, wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first

oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

$$\begin{array}{c}
O \\
II \\
--C - (CH_2)_7 - (OC_2H_4)_7 - OCH_3
\end{array}$$

5. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a molecular weight distribution with a standard deviation of less than about 22 Daltons, wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

6. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a molecular weight distribution with a standard deviation of less than about 22 Daltons, wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> or Lys<sup>18</sup> to an oligomer having the formula:

$${\overset{O}{\overset{||}{-}}}{\overset{C}{-}}{\overset{C}{-}}{\overset{(CH_2)_9}{-}}{\overset{-}{-}}{\overset{(OC_2H_4)_7}{-}}{\overset{O}{-}}{\overset{C}{-}}{\overset{C}{+}}$$
 .

7. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a dispersity coefficient (DC) greater than 10,000 where

$$DC = \frac{\left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}{\sum_{i=1}^{n} N_{i} M_{i}^{2} \sum_{i=1}^{n} N_{i} - \left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}$$

wherein:

n is the number of different molecules in the sample;

N<sub>i</sub> is the number of i<sup>th</sup> molecules in the sample; and

M<sub>i</sub> is the mass of the i<sup>th</sup> molecule, and

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wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

$$C_{\parallel}^{O}$$
 —  $C_{\parallel}^{O}$  —

8. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a dispersity coefficient (DC) greater than 10,000 where

$$DC = \frac{\left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}{\sum_{i=1}^{n} N_{i} M_{i}^{2} \sum_{i=1}^{n} N_{i} - \left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}$$

wherein:

n is the number of different molecules in the sample;

N<sub>i</sub> is the number of i<sup>th</sup> molecules in the sample; and

M<sub>i</sub> is the mass of the i<sup>th</sup> molecule, and

wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

$$\begin{array}{cccc}
O & O \\
II & II \\
--C-(OCH_2CH_2)_6-OC(CH_2)_{16}CH_3
\end{array}$$

9. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates having a dispersity coefficient (DC) greater than 10,000 where

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$$DC = \frac{\left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}{\sum_{i=1}^{n} N_{i} M_{i}^{2} \sum_{i=1}^{n} N_{i} - \left(\sum_{i=1}^{n} N_{i} M_{i}\right)^{2}}$$

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wherein:

n is the number of different molecules in the sample;

N<sub>i</sub> is the number of i<sup>th</sup> molecules in the sample; and

M<sub>i</sub> is the mass of the i<sup>th</sup> molecule, and

wherein each conjugate in the mixture comprises salmon calcitonin coupled at Lys<sup>11</sup> or Lys<sup>18</sup> to an oligomer having the formula:

$$C_{11}$$
 — $C_{12}$  — $C_{13}$  — $C_{14}$  — $C_{14}$  — $C_{15}$  — $C_{1$ 

10. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates in which each conjugate comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

$$\begin{array}{c} O \\ II \\ --C --(CH_2)_7 ---(OC_2H_4)_7 --OCH_3 \end{array}$$

11. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates in which each conjugate comprises salmon calcitonin coupled at Lys<sup>11</sup> to a first oligomer and coupled at Lys<sup>18</sup> to a second oligomer, and wherein the first oligomer and the second oligomer each have the formula:

12. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates in which each

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conjugate comprises salmon calcitonin coupled at Lys<sup>11</sup> or Lys<sup>18</sup> to an oligomer having the formula:

13. A method of treating peripheral pain in a subject in need thereof, comprising administering to the subject an effective amount of a mixture of conjugates in which each conjugate has the same molecular weight and has the structure: Calcitonin Drug-oligomer where the oligomer has the formula:

$$\begin{bmatrix} B-L_{j}-G_{k}-R-G'_{m}-R'-G''_{n}-T \end{bmatrix}_{p} \qquad (A)$$

and wherein:

the Calcitonin Drug is a salmon calcitonin coupled to the oligomer at Lys<sup>11</sup> and Lys<sup>18</sup>; B is a bonding moiety;

L is a linker moiety;

G, G' and G" are individually selected spacer moieties;

R is a lipophilic moiety and R' is a polyalkylene glycol moiety, or R' is the lipophilic moiety and R is the polyalkylene glycol moiety;

T is methoxy;

j, k, m and n are individually 0 or 1; and

p is an integer from 1 to the number of nucleophilic residues on the calcitonin drug.